

**HYDROGEOLOGIC INVESTIGATION**  
**SAAD TROUSDALE SITE**  
**NASHVILLE, DAVIDSON COUNTY, TENNESSEE**

**STATUS REPORT**

**January 18, 1995**

**Submitted to:**

**Roy F. Weston, Inc.**  
**Technical Assistance Team**  
**1021 Production Court**  
**Louisville, KY 40299**

**Submitted by:**

**Nicholas C. Crawford, Ph.D.**  
**Crawford and Associates, Inc.**  
**480 Peachtree Lane**  
**Bowling Green, KY 42103**

**HYDROGEOLOGIC INVESTIGATION, SAAD TROUSDALE DRIVE SITE,  
NASHVILLE, DAVIDSON COUNTY, TENNESSEE**

**STATUS REPORT**

**January 18, 1995**

**TABLE OF CONTENTS**

<b>DYE TRACE RESULTS.....</b>	<b>1</b>
Rhodamine WT Trace.....	1
Fluorescein Trace.....	2
Tinopal CBS-X Optical Brightener Trace.....	4
<b>DISCUSSION.....</b>	<b>6</b>
Original Scope of Work.....	6
Problems.....	9
<b>PROPOSED EXTENSION AND CHANGES IN SCOPE OF WORK.....</b>	<b>14</b>
Extend Monitoring Period Through April While Continuing to Change Dye Receptors Every Two Weeks and Reducing the Number of Monitoring Locations.....	14
Inject Dye Into Monitoring Well EPA-1 at Radnor Yard.....	15
Inject Dye Into New Bedrock Monitoring Well at Saad Site.....	15
<b>APPENDIX 1: ANALYSIS OF PASSIVE DYE RECEPTORS.....</b>	<b>17</b>

**HYDROGEOLOGIC INVESTIGATION, SAAD TROUSDALE DRIVE SITE,  
NASHVILLE, DAVIDSON COUNTY, TENNESSEE**

**STATUS REPORT**

**January 18, 1995**

**DYE TRACE RESULTS**

Two of the three dyes injected have been detected at springs. Several heavy rains which began toward the end of November appear to have contributed to the movement of the dyes. Rhodamine WT injected into Monitoring Well CSX-1 at Radnor Yard was detected on charcoal dye receptors at several storm sewer locations and at the CSX Outfall, the headwaters of the East Fork of Browns Creek (Plate 1). Fluorescein injected into a dye injection well at the GE Site was detected on charcoal dye receptors at a spring located about 2200 feet to the north and at three locations in the stream downstream from the spring. Low levels of Tinopal CBS-X Optical Brightener, the dye injected into wells on the Saad Site were detected in water samples collected on December 13, 19 and 22 from the water being pumped from the pit excavated at Radnor Yard for the new diesel fuel tank and on cotton and charcoal dye receptors at the Ogden Well, located about 100 feet to the west of the injection wells. It has not yet been detected at a spring, however.

**Rhodamine WT Trace**

Nine pounds of Rhodamine WT were injected into monitoring well CSX-1 at Radnor Yard on September 18. It was only flushed with 300 gallons of water. On November 5, an additional 18 pounds of Rhodamine WT were injected and flushed with 1900 gallons of water. Rhodamine WT was detected on activated charcoal dye receptors retrieved from the CSX storm sewer system on November 23. The storm sewer system was installed under Radnor Yard along the general route of the East Fork of Browns Creek and its tributaries previous to filling of the upper portion of the valley with up to 50 feet of fill material. This has raised the water table in the area above the level of the storm

sewers and groundwater continuously leaks into the storm sewers from the water table in the fill material. Also, springs that once flowed from the bedrock aquifer into the East Fork of Browns Creek previous to the filling of the valley, probably now discharge into the storm sewers. Therefore, the CSX storm sewer outfall is now the headwaters for the East Fork of Browns Creek.

The Rhodamine WT was first detected on November 23 at the dye receptor placed into the storm sewer water being pumped into the oil-water separator treatment plant at Radnor Yard (74 on Figure 1 and Appendix 1). Since it was not detected on that date at the storm sewer manhole upstream at 73, it must be entering the system between 73 and 74. (However, on December 22 it was detected in storm sewer 73.) It was also detected at 79, the dye receptor at the manhole downstream from 74, and at 57 (Figure 1 and Plate 1), the CSX Outfall on November 23. The levels have continued to slowly increase on the dye receptors retrieved from these locations since November 23 (Appendix 1). The levels are low, but clearly well above background. They indicate that the dye is being very slowly released from the fill material into the storm sewer. It is not clear whether the dye is sinking slowly through the fill into the bedrock and then into the storm sewer or if it is draining directly into the storm sewer before reaching bedrock. Rhodamine WT was also detected on a grab water sample and on the dye receptor retrieved on January 16 from the flow of water being pumped from the pit that has been excavated for the replacement diesel fuel tank at Radnor Yard (Plate 1). This water is being pumped from voids in the bedrock aquifer. Therefore, it does appear that Rhodamine WT is sinking through the regolith into the bedrock.

### **Fluorescein Trace**

A dye injection well was drilled at the GE Site into a void in the bedrock 24 feet below the ground surface. The same void had been intersected during the installation of a nearby monitoring well but it had been cased off. Three pounds of Fluorescein dye were injected into the well and flushed with 500 gallons of water on September 20. An additional three pounds were injected on November 5 and flushed with 9000 gallons of water.

Fluorescein was detected on several dye receptors retrieved on November 15. The dye flowed east to McNally Drive Spring 43, located approximately 2200 feet east of the dye injection well at the GE Site (Figure 1, Plate 1 and Appendix 1). After flowing past 43, the Fluorescein was detected on dye receptors 42, located in Nolensville Road Creek about 150 feet downstream from 43, and on 22 which is located in the creek downstream from 42 just upstream from its confluence with the stream from Grassmere, and finally at dye receptor 23 located in Nolensville Road Creek near its confluence with Sevenmile Creek. The dye receptors retrieved on November 29 and December 11 were also positive for Fluorescein (Appendix 1). Therefore, low concentrations of Fluorescein were released from the aquifer for over a month.

It appears that dye may also have flowed into a tributary of Sevenmile Creek upstream of 4.2 on November 15. The dye receptors downstream from 4.2 on Sevenmile Creek, 5.2 and 6.2, were also positive (Appendix 1). These dye receptors were only positive on one occasion and we are therefore reluctant to call them positive. Although the high Fluorescein background levels doubled at Croft Spring and at the CSX Outfall, but this is due to changing from a one week collection interval to a two week interval. The increase on the dye receptors at McNally Drive Spring and along Nolensville Road Creek were more than 100 times their background levels.

#### **Tinopal CBS-X Optical Brightener Trace**

Ten pounds of Tinopal CBS-X Optical Brightener were injected into regolith monitoring well B-11 on September 18. An additional 10 pounds of Tinopal CBS-X Optical Brightener were injected into bedrock monitoring well SSS-1 on November 5. The injection into B-11 appears to have gone into a pool of groundwater perched upon a clay lens in the fill material. Monitoring well SSS-1, reported to have had a capacity of 50 gallons per minute, appears to have been damaged. It would not even take one gallon per minute of flush water. It is believed that the dye was injected into the fill material rather than bedrock. Grab samples collected from water being pumped from the large pit that has been excavated to replace the large diesel fuel tank at Radnor Yard were weakly positive for Tinopal CBS-X Optical Brightener on December 13, 19 and 22 (Plate 1). On

December 22, Tinopal CBS-X Optical Brightener was detected on both cotton and charcoal receptors retrieved from the Ogden Well at Radnor Yard, located about 100 feet west of the injection wells (Appendix 1). Tinopal CBS-X Optical Brightener has not been detected at any other locations. It appears to be moving very slowly through the fill material.

## DISCUSSION

### Original Scope of Work

In the original Scope of Work for this investigation it was proposed that three dye traces be started at three wells followed by three more traces approximately one month later. The purpose of the proposed traces was to delimit the groundwater drainage divide in the general area of the Saad Site, Radnor Yard and the GE Site. Potentiometric data indicated that the divide between groundwater flowing east to Croft Spring at Grassmere and groundwater flowing west to the headwaters of the East Fork of Browns Creek at the CSX Outfall was located in the general vicinity of the CSX Roundhouse, just west of the Saad Site (Plate 1).

The following wells were selected for the first three traces:

1. Monitoring Well SSS-1 at the Saad Site--This is a bedrock well drilled into the Bigby-Cannon to the top of the Hermitage Formation. It intersected at least one open bedding plane parting and was reported to have a capacity of 50 gpm. This appeared to be the best well for dye injection in the area.
2. Monitoring Well CSX-1 near the Roundhouse at Radnor Yard. This is a well drilled to the top of bedrock with a capacity of 8 gpm. Although this was not a bedrock well, it had a high capacity for taking dye and flush water. There is some evidence of an uppermost aquifer in the overburden, probably separated from the bedrock aquifer in the Bigby Cannon by a leaky clay confining layer which may be the original subsoil before as much as 50 feet of fill material was added. Since the contaminants must have worked their way down into bedrock from this fill material, we felt that some of the dye traces should originate in the fill and thus follow the route taken by the contaminants.
3. GE Site Dye Injection Well. The existing monitoring wells on the GE Site appeared to be too deep and we suspected that they might actually be screened into a confined aquifer. Therefore, we drilled a bedrock well into a void about 24 feet below the ground for dye injection. The void had originally been

intersected by an existing monitoring well, but it had been cased off. The void was above the water table but it had a capacity of 8 gpm without building up any head. Therefore it appeared that we could flush dye through the void into a conduit within the limestone that would carry it to a spring.

The following wells were selected for the second three traces:

4. Monitoring Well EPA-1 near the diesel tank at Radnor Yard. This is a bedrock well, reported to have a capacity of only one gpm. Our capacity test indicated it could take 4 gpm of flush water. The existing potentiometric data indicates that groundwater in this area flows east to Croft Spring at Grassmere. However, it is located near the groundwater drainage divide and this needs to be tested with a dye trace.
5. Piezometer P-2 at Radnor Yard. This is a bedrock well that took all the water we could give it from a nearby fire hydrant during a capacity test. The potentiometric data indicates that groundwater flow in this area is west into the Radnor Yard storm sewer system to the CSX Outfall, the headwaters of the East Fork of Browns Creek..
6. This injection well was to be selected based on results of the first three dye traces. This trace was to be started at a place where additional data was needed to establish the groundwater basin divide.

There are only six fluorescent dyes presently being used for dye tracing groundwater flow in karst areas. They are:

1. Fluorescein (Color Index: Acid Yellow 73)
2. Rhodamine WT (Color Index: Acid Red 388)
3. Eosine (Color Index: Acid Red 87)
4. Tinopal CBS-X Optical Brightener (Fabric Brightening Agent 351)
5. Diphenyl Brilliant Flavine 7GFF (Color Index: Direct Yellow 96)



## 6. Sulphorhodamine B (Color Index: Acid Red 52)

Unfortunately, the emission wavelength of Rhodamine WT and Sulphorhodamine B are so close together, it is not a good idea to use them both in the same area. Therefore, there are only five dyes that can be used in the same area. Of these, some are better than others. For example, Tinopal CBS-X Optical Brightener is sometimes a problem for detection on cotton and activated charcoal because of background interference. However, water samples collected by ISCO samplers can be analyzed to produce a dye breakthrough curve. Fluorescein is also often a problem in urban and industrial areas because of high background. The two sets of background dye receptors collected before the injection of dye indicated virtually no background for Tinopal CBS-X Optical Brightener, Rhodamine WT, Eosine, or Direct Yellow 96, but very high background for Fluorescein at some locations. The high Fluorescein backgrounds were from dye receptors retrieved from Croft Spring at Grassmere and from storm sewers that receive groundwater, wells and the CSX Outfall at Radnor Yard. High background is a serious problem for dye traces dependent on cotton and charcoal dye receptors, but can be overcome by use of ISCO samplers which permit one to record the dye breakthrough curve as the dye cloud flows out of the spring.

After considering the backgrounds, we decided on the following dyes:

1. Monitoring Well SSS-1 at Saad Site--Tinopal CBS-X Optical Brightener. Although this is the worst dye of the five available, we chose to use it at the Saad Site because: a) The Saad Site is located well to the east of the groundwater divide estimated by previous researchers and Crawford and Associates to be near the Roundhouse at Radnor Yard (Plate 1). b) The CSX-1 well at Radnor Yard is west of the Saad Site but still east of this hypothesized groundwater divide. Therefore, if dye from CSX-1 flowed east to Croft Spring, then water from the Saad Site well, being east of CSX-1, must flow there also.

2. Monitoring Well CSX-1 near the Roundhouse at Radnor Yard--Rhodamine WT. This well was very close to the estimated groundwater divide and therefore, considered to be in a very important location. Consequently, one of our best dyes was selected for injection at this location.
3. GE Site Dye Injection Well--Fluorescein. Fluorescein had to be used because of the limited number of available dyes. The water table at the GE Site is at least 20 feet lower in elevation than the groundwater drainage divide near the Roundhouse at Radnor Yard. Therefore, there was no chance of groundwater from the GE Site flowing onto Radnor Yard. The only spring it could have flowed to that had high Fluorescein background was Croft Spring and we had an ISCO sampler at that location which would have permitted detection even with the high background.
4. Monitoring Well EPA-1 near diesel tank at Radnor Yard--Eosine. Since Eosine is considered one of the best dyes, it was reserved for this well. This well is on the east side of the estimated groundwater drainage divide (Plate 1).
5. Piezometer P-2 at Radnor Yard--Direct Yellow 96. This well was selected because it is close to, but on the west side of the estimated groundwater drainage divide.
6. Undecided well--we had hoped that one of the first three dyes would have sufficiently cleared the system to permit it to be used again, at least for a quantitative trace with ISCO samplers.

We believe that considering the severe constraints imposed by this site, this was and remains the most logical approach to this investigation.

### **Problems**

Since Crawford started dye tracing groundwater flow in 1972, he has never had a more demanding site and as many problems.

1. Most of the area where all three sites are located is covered with fill material, as much as 50 feet thick in places, where the headwater valley of the East Fork

of Browns Creek has been buried. This material varies from zones with large rocks to clay lenses. Perched pockets of water exist above the clays and rapid flow occurs within the rock. The fill has raised the water table into the fill and probably even reversed groundwater flow directions in the area of the drainage divide between the East Fork of Browns Creek and Croft Spring.

2. Although we had planned to inject dye into bedrock well SSS-1 at the Saad Site, it was discovered that instead of a capacity of 50 gpm, as reported, it would actually only take a little less than 1 gpm. Therefore, we injected 10 pounds of Tinopal CBS-X Optical Brightener into regolith well B-11. This Regolith well was the only other well available on the Saad Site. During the second dye injection, November 5, 10 pounds of Tinopal CBS-X Optical Brightener were injected into SSS-1. However, after it was injected, the well actually took water slower than before (less than 1 gpm). Consequently no flush water was used to flush this dye into the aquifer. Therefore, instead of injecting dye into a high-capacity bedrock void as planned, we had to settle for injecting it into the fill material above bedrock. The Tinopal CBS-X Optical Brightener injected into these regolith wells is the only dye that has not been detected at a spring. It is believed that if it could have been injected into the bedrock well, this trace would have been positive at a spring by now.
3. The original Scope of Work called for injecting Eosine into CSX-1 on Radnor Yard and Fluorescein into the dye injection well at the GE Site. Even the permit filed with the State indicated that these two dyes would be injected into these two wells. The decision to use Rhodamine WT instead of Eosine at the CSX-1 well was virtually made at the last minute by Crawford. On controversial dye traces, Crawford often keeps the dye to be used a secret until the time of injection. Both Eosine and Fluorescein dyes have been detected at the Saad Site during these traces! Eosine was detected in the background dye receptor removed from SSS-1 well and on subsequent receptors (Appendix 1). The levels slowly decreased with time until it was no longer detectable. After 3 weeks, Eosine was detected in the Ogden Well, located 100 feet to the west

(Appendix 1). The levels rose in the Ogden Well and then decreased until Eosine was no longer detectable. This pattern resembles what would have occurred if Eosine from the Saad Site had been carried by the slow moving groundwater west past the Ogden Well. Eosine has not been detected anywhere else during this investigation and it is no longer detectable in the Ogden well.

Only very low levels of Fluorescein were detected in the background dye receptors from the two wells at the Saad Site and only relatively low levels have been detected at any time in receptors retrieved from these wells (Appendix 1). (Often we do not even change dye receptors in injection wells since these are places where dye is injected and then flushed away from the well.) However, during the excavation and pumping of water from the pit dug by Signal Environmental on the Saad Site, green water was noticed flowing from the soil into the pool in the pit. On November 12, Rick Tucker was changing dye receptors on site while it was raining and he noticed green water in the pit and also flowing from the soil pile excavated from the pit. A sample collected from one of many pools on the ground surface near the soil pile contained 56,000 ppb Fluorescein.

There appears to be two possible explanations for the Eosine and Fluorescein detected on the Saad Site: 1) It was put there by someone just before and during the dye trace. 2) It was already there previous to the start of these traces perhaps in the soil from traces that were attempted in the past. This Fluorescein contaminated soil might have been intercepted as the pit was dug and thus released into the aquifer. However, we were assured that no dye tracing had been attempted at the Saad Site in the past.

If we had injected Eosine, as planned on the date originally planned, it might have appeared that Eosine from Radnor Yard and Fluorescein from the GE Site had both flowed onto the Saad Site. However, we did not inject Eosine anywhere and the water table under the GE Site is at least 30 feet lower than the water table under the Saad Site. We deliberately chose the GE Site as

the site to inject Fluorescein for this reason. Although the detection of Eosine and very high levels of Fluorescein on the Saad Site is disturbing, it does not appear to have impacted any of the three dye traces that we have started in the area. Actually, it appears that these two dyes are moving from the Saad Site to the west as indicated by the detection of first Eosine and then Fluorescein in the Ogden well. This supports the flow direction indicated by Tinopal CBS-X Optical Brightener flowing west to Ogden Well, Rhodamine WT injected into the nearby CSX-1 Well flowing west into the Radnor Yard storm sewers and the westward gradient of the potentiometric surface as drawn on Plate 1. Regardless of whether the Fluorescein was injected into the Saad Site or uncovered by the excavation for the pit, it would have initiated a dye trace. This may account for the relatively high Fluorescein concentrations on the following dye receptors:

- 102.2 (2D) on 11-23
- 74 (Storm sewer treatment plant) on 11-13 and 12-22
- 79 (Storm sewer near P-5) on 11-23
- 82 (Ogden Well) on 12-22
- 69 (CSX-1 Well) on 12-11 and 12-22
- 72 (EPA-1 Well) on 12-11 and 12-22
- 73 (Upstream storm sewer) on 12-22

All of these are located on Radnor Yard, downgradient from the Saad Site (Appendix 1 and Plate 1). All of these relatively high concentrations occurred after the Fluorescein appeared in the pit at the Saad Site. Since the water table at all of these locations is at least 20 feet higher than the water table at the GE Site, dye injected there was definitely not the source of this Fluorescein.

4. Since we could not inject dye into the bedrock on the Saad Site, we had to inject into the fill material. However, after dye injection, Signal Environmental excavated a large pit below the water table on the Saad Site and proceeded to pump tens of thousands of gallons of water from the aquifer. Drawing down

the aquifer only a few feet from the injection well decreased the flow of the groundwater and dye away from the injection well.

5. Because some consultants were extremely concerned about the proposed slow injection of flush water to push the dye into and through the aquifer, we only flushed with 300 gallons at both the Saad Site and at the CSX-1 well on Radnor Yard during the first injection and then none at the Saad Site and only 1900 gallons at CSX-1 well during the second injection. We have been very careful not to do anything that might alter the flow of groundwater through the aquifer. Unfortunately, a large pit was excavated at the site where the diesel fuel tank is being replaced on Radnor Yard adjacent to the EPA-1 well, and since the middle of November, tens of thousands of gallons have been pumped from the aquifer. It might not have mattered at some locations, but this is the place where the potentiometric surface map indicates that groundwater is flowing from Radnor Yard toward Croft Spring (Plate 1). Although we were told in advance of the plans for construction work at Radnor Yard, we were not told that it included pumping down the aquifer until after the fact. Tinopal CBS-X Optical Brightener and Rhodamine WT have been detected in grab samples collected from the water being pumped from this pit. Rhodamine WT has been detected on dye receptors placed in the stream of water being pumped from the excavation. This pumping may have prevented Tinopal CBS-X Optical Brightener and Rhodamine WT from flowing east to Croft Spring. It has definitely prevented us from starting another trace at the EPA-1 well. The well is actually located along the east wall of this excavation. It will not be possible to start another trace or even to complete the Tinopal CBS-X and Rhodamine WT traces now in progress until this pumping is stopped. We have been told that pumping will continue until sometime in February.

## **PROPOSED EXTENSION AND CHANGES IN SCOPE OF WORK**

Obviously, the first three dye traces have required considerably more time than expected. However, two of the traces, the Rhodamine WT trace of CSX-1 well at Radnor Yard and the Fluorescein trace of the dye injection well at the GE Site have been detected at springs. Tinopal CBS-X Optical Brightener from the Saad Site trace has been detected on cotton and charcoal at the Ogden Well, located about 100 feet to the west and from grab samples of the water being pumped from the recently excavated pit on Radnor Yard. These traces were started during the driest time of the year. Very little groundwater recharge occurred to move the dyes through the aquifer until December. It was not an unusually dry Fall, there were several good rains and virtually all the springs being monitored continued to flow. However, the Geoguard TUBER pressure transducer data logger we installed at Croft Spring indicates about the same discharge all through this period. It now appears that winter recharge has increased groundwater flow velocities.

Although Rhodamine WT injected into CSX-1 well has been carried by groundwater into the Radnor Yard storm sewer system to discharge at the CSX Outfall, the headwaters for the East Fork of Browns Creek, it is still possible that it may also resurge at Croft Spring. We have not been able to start additional traces because of the long flow-through times of the first three traces and because of pumping of groundwater from the diesel tank excavation, adjacent to the EPA-1 well, since mid-November. Therefore, we are proposing that this project be continued through April 1995.

### **Extend Monitoring Period Through April While Continuing to Change Dye Receptors Every Two Weeks and Reducing the Number of Monitoring Locations**

In order to permit sufficient time to complete the traces in progress and to start two additional traces it is proposed that the monitoring period be extended through April 1995. We cannot start additional traces until the pumping has stopped at the excavation adjacent to the EPA-1 well on Radnor Yard. We have been told that this will be sometime in February. If we could inject dye by February 1, we would have three months to complete these traces.

**Inject Dye Into Monitoring Well EPA-1 at Radnor Yard**

We propose to inject dye into monitoring well EPA-1 at Radnor Yard to establish if groundwater at this location flows east to Croft Spring or west to CSX Outfall at the East Fork of Browns Creek, or both. We propose to use a large quantity of Direct Yellow 96, possibly 20 pounds for this trace. We may also inject 10 pounds of Fluorescein at the same time. This should be sufficient to overcome the high background levels already in the system and permit us to construct a dye breakthrough curve for Croft Spring, the CSX Outfall, or both.

**Inject Dye into New Bedrock Monitoring Well at Saad Site**

Originally, we had planned on injecting dye into bedrock wells with voids that had a high capacity or into regolith wells with high capacity, probably indicative of conduit flow at or near the top of bedrock. Capacity tests were performed on five existing wells, SSS-1 and B-11 at the Saad Site and EPA-1, CSX-1 and P-2 at Radnor Yard. These were all of the existing wells located near the hypothesized water table drainage divide.

The original plan called for using MW SSS-1 at the Saad Site as a dye injection well since it was supposed to have a capacity of 50 gallons per minute. Unfortunately this well appears to have been damaged during the excavation of a trench and when we performed a capacity test for flush water it took less than one gallon per minute. We believe that the casing may have been knocked off the hole in the bedrock. Since the well did not appear to be usable as an injection well, we used B-11, the shallow well located about 20 feet east of MW SSS-1. Although this was a regolith well, it took all the water we could give it, about 7 gallons per minute, without a rise in the water level. Therefore, Tinopal CBS-X Optical Brightener was injected into this well in the hope that it would find its way into a conduit along the regolith-bedrock contact. Later, when we injected additional Tinopal CBS-X Optical Brightener on November 5, it was injected into MW SSS-1. It appears now that neither of these wells was suitable for dye injection into the bedrock. Eventually the dye will move through the regolith and reach a bedrock conduit but this could take months or years. Therefore, we are proposing that a new monitoring well be drilled to replace MW SSS-1. Hopefully, we can drill this well so that it will



intersect the same void or voids and thus have a capacity of about 50 gallons per minute. Existing MW SSS-1 would be plugged and the new well then used to inject dye. It is our understanding that at least two new monitoring wells are needed at the Saad Site. Therefore, we propose that they be installed now so that the bedrock well can also be used for dye injection. The cost estimate for installing both these wells is about \$12,500. We propose to inject 25 pounds of Tinopal CBS-X Optical Brightener and 15 pounds of Eosine into this well.

**APPENDIX 1**  
**ANALYSIS OF PASSIVE DYE RECEPTORS**

# ANALYSIS OF PASSIVE DYE RECEPTORS

PROJECT: SAAD

## FLUORESCEIN

Color Index:  
Acid Yellow 73

Dye Receptor:  
Activated Charcoal

Analysis by:  
Spectrofluorophotometer

## RHODAMINE WT

Color Index:  
Acid Red 388

Dye Receptor:  
Activated Charcoal

Analysis by:  
Spectrofluorophotometer

## EOSINE

Color Index:  
Acid Red 87

Dye Receptor:  
Activated Charcoal

Analysis by:  
Spectrofluorophotometer

## TINOPAL CBS-X OPTICAL BRIGHTENER

Fabric Brightening  
Agent 351

Dye Receptor:  
Unbleached Cotton

Analysis by:  
Ultraviolet Light

## DIPHENYL BRILLIANT FLAVINE 7GFF

Color Index:  
Direct Yellow 96

Dye Receptor:  
Unbleached Cotton

Analysis by:  
Ultraviolet Light

Receptor Number	Date Recovered	Receptor Location	Eluant Prep	FLUORESCEIN Results	Conc. in ppb	Intensity	RHODAMINE WT Results	Conc. in ppb	Intensity	EOSINE Results	Conc. in ppb	Intensity	Optical Brightener
1	9/17/94	Suter Dr. Spring on Sevenmile Cr.	1	B	0.08	4	-			-			-
1	9/23/94		1	B	0.32	16	-			-			-
1	9/30/94		1	B	0.44	22	-			-			-
1	10/7/94		1	B	0.53	26.6	-			-			-
1	10/14/94		1	B	0.44	22.2	-			-			-
1	10/20/94		1	-			-			-			-
1	10/29/94		1	-			-			-			-
1	11/15/94		1	-			-			-			-
1	11/29/94		1	-			-			-			-
1	12/11/94		1	B	0.97	67	-			-			-
1	12/22/94		1	-			-			-			-
3	9/17/94	Milner Dr. Spring on Sevenmile Cr.	1	B	0.58	29	-			-			-
3	9/23/94		1	B	0.76	38	-			-			-
3	9/30/94		1	B	0.66	33	-			-			-
3	10/7/94		0	0			0			0			0
3	10/14/94		1	B	0.55	27.4	-			-			-
3	10/20/94		-	-			-			-			-
3	10/29/94		1	-			-			-			-
3	11/15/94		1	B	1.12	78	-			-			-
3	11/29/94		1	B	1.15	80	-			-			-
3	12/11/94		1	-			-			-			-
3	12/22/94		1	-			-			-			-
4.1	9/17/94	Harding Place Creek downstream	1	B	1.66	83	-			-			-
4.1	9/23/94		1	B	2.10	105	-			-			-
4.1	9/30/94		1	B	4.23	212	-			-			-
4.1	10/7/94		1	B	1.03	51.5	-			-			-

Receptor Number	Date Recovered	Receptor Location	Eluant Prep	FLUORESCCEIN			RHODAMINE WT			EOSINE			Optical Brightener
				Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	
4.1	10/14/94		1	B	2.49	124.5	-			-			-
4.1	10/20/94		1	B	1.20	60.1	-			-			-
4.1	10/29/94		1	B	0.63	31.4	-			-			-
4.1	11/15/94		1	B	4.07	282	-			-			-
4.1	11/29/94		1	B	3.91	271	-			-			-
4.1	12/11/94		1	B	3.94	273	-			-			-
4.1	12/22/94		1	B	1.31	91	-			-			-
4.2	9/17/94	Harding Place Creek downstream	1	B	0.44	22	-			-			-
4.2	9/23/94		1	B	1.62	81	-			-			-
4.2	9/30/94		1	B	3.61	181	-			-			-
4.2	10/7/94		1	B	0.38	19	-			-			-
4.2	10/14/94		1	B	1.93	96.7	-			-			-
4.2	10/20/94		1	B	3.34	167.2	-			-			-
4.2	10/29/94		1	B	5.43	271.8	-			-			-
4.2	11/15/94		1	+++	36.47	2530	-			-			-
4.2	11/29/94		1	B	5.45	378	-			-			-
4.2	12/11/94		1	B	3.49	242	-			-			-
4.2	12/22/94		1	B	2.42	168	-			-			-
5.1	9/17/94	Castner Knot Spring at Sevenmile Cr.	1	B	0.30	15	-			-			-
5.1	9/23/94		1	B	0.24	12	-			-			-
5.1	9/30/94		1	B	1.02	51	-			-			-
5.1	10/7/94		1	B	0.26	13.1	-			-			-
5.1	10/14/94		1	B	0.85	42.4	-			-			-
5.1	10/20/94		1	B	2.26	113	-			-			-
5.1	10/29/94		1	B	0.70	35.3	-			-			-
5.1	11/15/94		1	B	0.56	39	-			-			-
5.1	11/29/94		1	B	1.11	77	-			-			-
5.1	12/11/94		1	B	1.05	73	-			-			-
5.1	12/22/94		1	B	1.36	94	-			-			-
5.2	9/17/94	Sevenmile Creek at Caster Knot	1	B	0.80	40	-			-			-
5.2	9/23/94		1	B	1.26	63	-			-			-
5.2	9/30/94		1	B	0.70	35	-			-			-
5.2	10/7/94		1	B	0.49	24.5	-			-			-
5.2	10/14/94		1	B	0.55	27.7	-			-			-
5.2	10/20/94		1	B	0.69	34.5	-			-			-
5.2	10/29/94		1	B	0.58	28.8	-			-			-
5.2	11/15/94		1	+++	30.85	2140	-			-			-
5.2	11/29/94		1	B	1.31	91	-			-			-

Receptor Number	Date Recovered	Receptor Location	Eluant Prep	FLUORESCCEIN			RHODAMINE WT			EOSINE			Optical Brightener
				Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	
5.2	12/11/94		0	0			0			0			0
5.2	12/22/94		1	-			-			-			-
6.1	9/17/94	Welch Rd. Spring on Sevenmile Cr.	1	B	1.18	59	-			-			-
6.1	9/23/94		1	B	5.31	266	-			-			-
6.1	9/30/94		1	B	0.74	37	-			-			-
6.1	10/7/94		1	B	2.56	128	-			-			-
6.1	10/14/94		1	B	0.80	39.9	-			-			-
6.1	10/20/94		1	B	1.76	88.1	-			-			-
6.1	10/29/94		1	B	0.95	47.4	-			-			-
6.1	11/15/94		1	B	2.45	170	-			-			-
6.1	11/29/94		1	B	1.54	107	-			-			-
6.1	12/11/94		1	B	3.52	244	-			-			-
6.1	12/22/94		1	B	2.31	160	-			-			-
6.2	9/30/94	Sevenmile Creek at Welch Road	1	B	0.92	46	-			-			-
6.2	10/14/94		1	-			-			-			-
6.2	10/20/94		1	B	0.67	33.6	-			-			-
6.2	10/29/94		1	B	0.56	27.9	-			-			-
6.2	11/15/94		1	B	2.97	206	-			-			-
6.2	11/29/94		1	++	11.98	831	-			-			-
6.2	12/11/94		1	B	4.51	313	-			-			-
6.2	12/22/94		1	B	0.43	30	-			-			-
7	9/30/94	Spring C on Briarwood Road Cr.	1	B	0.04	2	-			-			-
7	10/20/94		1	-			-			-			-
7	10/29/94		1	-			-			-			-
7	11/29/94		1	-			-			-			-
7.1	9/17/94	Spring C on Briarwood Road Cr.	1	B	0.32	16	-			-			-
7.1	9/23/94		1	-			-			-			-
7.1	10/7/94		1	-			-			-			-
7.1	10/14/94		1	-			-			-			-
7.1	11/15/94		1	-			-			-			-
7.1	12/11/94		1	-			-			-			-
7.1	12/22/94		1	-			-			-			-
7.2	9/17/94	Spring C on Briarwood Road Cr.	1	B	0.12	6	-			-			-
7.2	9/23/94		1	B	0.08	4	-			-			-
7.2	10/7/94		1	-			-			-			-
7.2	10/14/94		1	-			-			-			-
7.2	11/15/94		1	B	0.26	18	-			-			-
7.2	12/11/94		1	-			-			-			-

Receptor Number	Date Recovered	Receptor Location	Eluant Prep	FLUORESCCEIN			RHODAMINE WT			EOSINE			Optical Brightener
				Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	
7.2	12/22/94	Spring E on Briarwood Road Cr.	1	-			-			-			-
8.1	9/17/94		1	B	0.24	12	-			-			-
8.1	9/23/94		1	B	0.12	6	-			-			-
8.1	9/30/94		1	-			-			-			-
8.1	10/7/94		1	-			-			-			-
8.1	10/14/94		1	-			-			-			-
8.1	10/20/94		1	-			-			-			-
8.1	10/29/94		1	-			-			-			-
8.1	11/15/94		1	-			-			-			-
8.1	11/29/94		1	-			-			-			-
8.1	12/11/94	Spring E on Briarwood Road Cr.	1	-			-			-			-
8.1	12/22/94		1	-			-			-			-
8.2	9/17/94		1	B	0.12	6	-			-			-
8.2	9/23/94		1	B	0.18	9	-			-			-
8.2	9/30/94		1	-			-			-			-
8.2	10/7/94		1	-			-			-			-
8.2	10/14/94		1	-			-			-			-
8.2	10/20/94		1	-			-			-			-
8.2	10/29/94		1	-			-			-			-
8.2	11/15/94		1	B	0.13	9	-			-			-
8.2	11/29/94	Spring F on Briarwood Road Cr.	1	-			-			-			-
8.2	12/11/94		1	-			-			-			-
8.2	12/22/94		1	-			-			-			-
9.1	9/17/94		1	-			-			-			-
9.1	9/23/94		1	B	0.40	20	-			-			-
9.1	9/30/94		1	B	0.52	26	-			-			-
9.1	10/7/94		1	-			-			-			-
9.1	10/14/94		1	-			-			-			-
9.1	10/20/94		1	-			-			-			-
9.1	10/29/94		1	-			-			-			-
9.1	11/15/94	Spring F on Briarwood Road Cr.	1	-			-			-			-
9.1	11/29/94		1	-			-			-			-
9.1	12/11/94		1	-			-			-			-
9.1	12/22/94		1	-			-			-			-
9.2	9/17/94		1	B	0.22	11	-			-			-
9.2	9/23/94		1	B	0.14	7	-			-			-
9.2	9/30/94		1	B	0.48	24	-			-			-
9.2	10/7/94		1	-			-			-			-

Receptor Number	Date Recovered	Receptor Location	Eluant	FLUORESCCEIN			RHODAMINE WT			EOSINE			Optical Brightener
			Prep	Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	
9.2	10/14/94		1	B	0.23	11.5	-			-			-
9.2	10/20/94		1	-			-			-			-
9.2	10/29/94		1	-			-			-			-
9.2	11/15/94		1	-			-			-			-
9.2	11/29/94		1	-			-			-			-
9.2	12/11/94		1	-			-			-			-
9.2	12/22/94		1	-			-			-			-
10.1	9/17/94	Spring B on Briarwood Road Cr.	1	B	0.40	20	-			-			-
10.1	9/23/94		1	B	0.30	15	-			-			-
10.1	9/30/94		1	-			-			-			-
10.1	10/7/94		1	-			-			-			-
10.1	10/14/94		1	-			-			-			-
10.1	10/20/94		1	-			-			-			-
10.1	10/29/94		1	-			-			-			-
10.1	11/15/94		1	-			-			-			-
10.1	11/29/94		1	-			-			-			-
10.1	12/11/94		1	-			-			-			-
10.1	12/22/94		1	-			-			-			-
10.2	9/17/94	Spring B on Briarwood Road Cr.	1	B	0.26	13	-			-			-
10.2	9/23/94		1	B	0.22	11	-			-			-
10.2	9/30/94		1	-			-			-			-
10.2	10/7/94		1	-			-			-			-
10.2	10/14/94		1	-			-			-			-
10.2	10/20/94		1	-			-			-			-
10.2	10/29/94		1	-			-			-			-
10.2	11/15/94		1	-			-			-			-
10.2	11/29/94		1	-			-			-			-
10.2	12/11/94		1	-			-			-			-
10.2	12/22/94		1	-			-			-			-
11.1	9/17/94	Spring A on Briarwood Road Cr.	1	B	0.08	4	-			-			-
11.1	9/23/94		1	B	0.08	4	-			-			-
11.1	9/30/94		1	B	0.44	22	-			-			-
11.1	10/7/94		1	-			-			-			-
11.1	10/14/94		1	B	0.42	21.1	-			-			-
11.1	10/20/94		1	-			-			-			-
11.1	10/29/94		1	-			-			-			-
11.1	11/15/94		1	B	0.76	53	-			-			-
11.1	11/29/94		1	B	1.67	116	-			-			-

Receptor Number	Date Recovered	Receptor Location	Eluant Prep	FLUORESCCEIN			RHODAMINE WT			EOSINE			Optical Brightener
				Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	
11.1	12/11/94	Spring A on Briarwood Road Cr.	1	-			-			-			-
11.1	12/22/94		1	-			-			-			-
11.2	9/17/94		1	B	0.10	5	-			-			-
11.2	9/23/94		1	B	0.10	5	-			-			-
11.2	9/30/94		1	B	0.42	21	-			-			-
11.2	10/7/94		1	-			-			-			-
11.2	10/14/94		1	B	0.25	12.7	-			-			-
11.2	10/20/94		1	-			-			-			-
11.2	10/29/94		1	-			-			-			-
11.2	11/15/94		1	B	0.43	30	-			-			-
11.2	11/29/94		1	B	1.18	82	-			-			-
11.2	12/11/94		1	-			-			-			-
11.2	12/22/94	Spring D on Briarwood Road Cr.	1	-			-			-			-
12.1	9/17/94		1	B	0.28	14	-			-			-
12.1	9/23/94		1	B	0.18	9	-			-			-
12.1	9/30/94		1	B	0.34	17	-			-			-
12.1	10/7/94		1	-			-			-			-
12.1	10/14/94		1	-			-			-			-
12.1	10/20/94		1	-			-			-			-
12.1	10/29/94		1	-			-			-			-
12.1	11/15/94		1	B	0.32	22	-			-			-
12.1	11/29/94		1	-			-			-			-
12.1	12/11/94		1	-			-			-			-
12.1	12/22/94		1	-			-			-			-
12.2	9/17/94	Spring D on Briarwood Road Cr.	1	B	0.22	11	-			-			-
12.2	9/23/94		1	B	0.12	6	-			-			-
12.2	9/30/94		1	B	0.42	21	-			-			-
12.2	10/7/94		0	0			0			0			0
12.2	10/14/94		1	-			-			-			-
12.2	10/20/94		1	-			-			-			-
12.2	10/29/94		1	-			-			-			-
12.2	11/15/94		1	-			-			-			-
12.2	11/29/94		1	-			-			-			-
12.2	12/11/94		1	-			-			-			-
12.2	12/22/94		1	-			-			-			-
13.1	9/17/94	Blackman Rd. Sp. on Blackman Rd. Cr.	1	B	0.10	5	-			-			-
13.1	9/30/94		1	-			-			-			-
13.1	10/7/94		1	-			-			-			-



Receptor Number	Date Recovered	Receptor Location	Eluant Prep	FLUORESC EIN Results	Conc. in ppb	Intensity	RHODAMINE WT Results	Conc. in ppb	Intensity	EOSINE Results	Conc. in ppb	Intensity	Optical Brightener
13.1	10/14/94		1	B	0.16	8.0	-			-			-
13.1	10/20/94		1	-			-			-			-
13.1	10/29/94		1	-			-			-			-
13.1	11/15/94		1	B	0.25	17	-			-			-
13.1	11/29/94		1	-			-			-			-
13.1	12/11/94		1	-			-			-			-
13.1	12/22/94		1	-			-			-			-
13.2	9/17/94	Blackman Rd. Sp. on Blackman Rd. Cr.	1	B	0.20	10	-			-			-
13.2	9/23/94		1	B	0.18	9	-			-			-
13.2	9/30/94		1	B	0.24	12	-			-			-
13.2	10/7/94		1	-			-			-			-
13.2	10/14/94		1	B	0.22	11.1	-			-			-
13.2	10/20/94		1	-			-			-			-
13.2	10/29/94		1	-			-			-			-
13.2	11/15/94		1	B	0.37	26	-			-			-
13.2	11/29/94		1	-			-			-			-
13.2	12/11/94		1	-			-			-			-
13.2	12/22/94		1	-			-			-			-
14.1	9/17/94	Darlington Dr. Sp. on Crieve Hall Cr.	1	B	0.14	7	-			-			-
14.1	9/30/94		1	B	0.40	20	-			-			-
14.1	10/14/94		1	-			-			-			-
14.1	10/20/94		1	-			-			-			-
14.1	10/29/94		1	-			-			-			-
14.1	11/15/94		1	-			-			-			-
14.1	11/29/94		1	-			-			-			-
14.1	12/11/94		1	-			-			-			-
14.1	12/22/94		1	-			-			-			-
14.2	9/17/94	Darlington Dr. Sp. on Crieve Hall Cr.	1	B	0.18	9	-			-			-
14.2	9/30/94		1	B	0.16	8	-			-			-
14.2	10/7/94		1	-			-			-			-
14.2	10/14/94		1	B	0.44	22	-			-			-
14.2	10/20/94		1	-			-			-			-
14.2	10/29/94		1	-			-			-			-
14.2	11/15/94		1	-			-			-			-
14.2	11/29/94		1	-			-			-			-
14.2	12/11/94		1	-			-			-			-
14.2	12/22/94		1	-			-			-			-
15.1	9/17/94	Stillwood Dr. Sp. on Crieve Hall Cr.	1	B	0.46	23	-			-			-

Receptor Number	Date Recovered	Receptor Location	Eluant Prep	FLUORESCCEIN			RHODAMINE WT			EOSINE			Optical Brightener
				Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	
15.1	10/7/94		1	B	0.38	19	-			-			-
15.1	10/14/94		1	B	0.93	46.7	-			-			-
15.1	10/20/94		1	-			-			-			-
15.1	10/29/94		1	B	0.39	19.5	-			-			-
15.1	11/15/94		1	B	1.11	77	-			-			-
15.1	11/29/94		1	B	1.15	80	-			-			-
15.1	12/11/94		1	-			-			-			-
15.1	12/22/94		1	B	1.11	77	-			-			-
15.2	9/17/94	Stillwood Dr. Sp. on Crieve Hall Cr.	1	B	0.58	29	-			-			-
15.2	9/23/94		1	B	0.46	23	-			-			-
15.2	9/30/94		1	B	0.12	6	-			-			-
15.2	10/7/94		1	B	0.96	48	-			-			-
15.2	10/14/94		1	B	0.85	42.5	-			-			-
15.2	10/20/94		1	B	0.90	45	-			-			-
15.2	10/29/94		1	-			-			-			-
15.2	11/15/94		1	B	1.63	113	-			-			-
15.2	11/29/94		1	B	1.38	96	-			-			-
15.2	12/11/94		1	-			-			-			-
15.2	12/22/94		1	-			-			-			-
16.1	9/17/94	South Spring on Crieve Hall Cr.	1	B	0.40	20	-			-			-
16.1	9/23/94		1	B	0.26	13	-			-			-
16.1	9/30/94		1	B	0.32	16	-			-			-
16.1	10/7/94		1	B	0.42	20.9	-			-			-
16.1	10/14/94		1	B	0.48	23.8	-			-			-
16.1	10/20/94		1	B	0.75	37.6	-			-			-
16.1	10/29/94		1	-			-			-			-
16.1	11/15/94		1	B	0.59	41	-			-			-
16.1	11/29/94		1	B	0.65	45	-			-			-
16.1	12/11/94		1	-			-			-			-
16.1	12/22/94		1	B	0.55	38	-			-			-
16.2	9/17/94	South Spring on Crieve Hall Cr.	1	B	0.18	9	-			-			-
16.2	9/23/94		1	B	0.22	11	-			-			-
16.2	9/30/94		1	B	0.48	24	-			-			-
16.2	10/7/94		1	B	0.17	8.7	-			-			-
16.2	10/14/94		1	B	0.61	30.7	-			-			-
16.2	10/20/94		1	B	0.29	14.7	-			-			-
16.2	10/29/94		1	B	0.18	9.2	-			-			-
16.2	11/15/94		1	B	0.65	45	-			-			-

Receptor Number	Date Recovered	Receptor Location	Eluant Prep	FLUORESCCEIN			RHODAMINE WT			EOSINE			Optical Brightener
				Results	Conc. In ppb	Intensity	Results	Conc. In ppb	Intensity	Results	Conc. In ppb	Intensity	
16.2	11/29/94		1	B	0.59	41	-			-			-
16.2	12/11/94		1	B	0.69	48	-			-			-
16.2	12/22/94		1	-			-			-			-
17.1	9/17/94	Hogan Rd. Sp. on Crieve Hall Creek	1	B	0.20	10	-			-			-
17.1	9/23/94		1	B	0.46	23	-			-			-
17.1	9/30/94		1	B	0.74	37	-			-			-
17.1	10/7/94		1	-			-			-			-
17.1	10/14/94		1	B	0.68	33.9	-			-			-
17.1	10/20/94		1	-			-			-			-
17.1	10/29/94		1	-			-			-			-
17.1	11/15/94		1	B	1.14	79	-			-			-
17.1	11/29/94		1	B	1.08	75	-			-			-
17.1	12/11/94		1	-			-			-			-
17.1	12/22/94		1	-			-			-			-
17.2	9/17/94	Hogan Rd. Sp. on Crieve Hall Creek	1	B	0.36	18	-			-			-
17.2	9/23/94		1	B	0.36	18	-			-			-
17.2	9/30/94		1	B	0.66	33	-			-			-
17.2	10/7/94		1	-			-			-			-
17.2	10/14/94		1	B	0.86	43.3	-			-			-
17.2	10/20/94		1	-			-			-			-
17.2	10/29/94		1	-			-			-			-
17.2	11/15/94		1	B	1.21	84	-			-			-
17.2	11/29/94		1	B	1.31	91	-			-			-
17.2	12/11/94		1	-			-			-			-
17.2	12/22/94		1	-			-			-			-
18	9/17/94	Crieve Hall School Sp on Crieve Hall Cr.	1	B	0.46	23	-			-			-
18	9/30/94		1	B	0.74	37	-			-			-
18	10/7/94		1	-			-			-			-
18	10/14/94		1	B	0.47	23.7	-			-			-
18	10/20/94		1	-			-			-			-
18	10/29/94		1	-			-			-			-
18	11/15/94		1	B	0.91	63	-			-			-
18	11/29/94		1	-			-			-			-
18	12/11/94		1	-			-			-			-
18	12/22/94		1	-			-			-			-
19	9/17/94	Lynn Dr Sp West on Harding Pl Cr	1	B	0.06	3	-			-			-
19	9/23/94		1	B	0.04	2	-			-			-
19	9/30/94		1	B	0.26	13	-			-			-

Receptor Number	Date Recovered	Receptor Location	Eluant Prep	FLUORESCCEIN			RHODAMINE WT			EOSINE			Optical Brightener
				Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	
19	10/7/94		1	-			-			-			-
19	10/14/94		1	-			-			-			-
19	10/20/94		1	-			-			-			-
19	10/29/94		1	-			-			-			-
19	11/15/94		1	-			-			-			-
19	11/29/94		1	B	0.32	22	-			-			-
19	12/11/94		1	-			-			-			-
19	12/22/94		1	-			-			-			-
20	9/17/94	Lynn Dr Sp East on Harding Pl Cr	1	B	0.04	2	-			-			-
20	9/23/94		1	B	0.08	4	-			-			-
20	9/30/94		1	-			-			-			-
20	10/7/94		1	-			-			-			-
20	10/14/94		1	-			-			-			-
20	10/20/94		1	-			-			-			-
20	10/29/94		1	-			-			-			-
20	11/15/94		1	-			-			-			-
20	11/29/94		1	B	0.49	34	-			-			-
20	12/11/94		1	-			-			-			-
20	12/22/94		1	-			-			-			-
21	9/17/94	Coventry Dr Sp on Harding Place Cr	1	B	0.24	12	-			-			-
21	9/23/94		1	B	0.52	26	-			-			-
21	9/30/94		1	B	0.52	26	-			-			-
21	10/7/94		0	0			0			0			0
21	10/14/94		1	-			-			-			-
21	10/20/94		1	B	0.31	15.4	-			-			-
21	10/29/94		1	-			-			-			-
21	11/15/94		1	-			-			-			-
21	11/29/94		1	-			-			-			-
21	12/11/94		1	-			-			-			-
21	12/22/94		1	-			-			-			-
22	9/17/94	Nolensville Rd Creek at Grassmere	1	B	0.82	41	-			-			-
22	9/23/94		1	B	0.70	35	-			-			-
22	9/30/94		1	B	0.82	41	-			-			-
22	10/7/94		1	B	0.44	21.8	-			-			-
22	10/14/94		1	B	1.30	64.9	-			-			-
22	10/20/94		1	B	0.52	26	-			-			-
22	10/29/94		1	B	0.62	31	-			-			-
22	11/15/94		1	++	7.64	530	-			-			-

Receptor Number	Date Recovered	Receptor Location	Eluant Prep	FLUORESCCEIN			RHODAMINE WT			EOSINE			Optical Brightener
				Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	
22	11/29/94	Nolensville Rd Cr at Sevenmile Cr	1	+++	26.96	1870	-			-			-
22	12/11/94		1	++	6.34	440	-			-			-
22	12/22/94		1	B	2.52	175	-			-			-
23	9/17/94		1	B	0.98	49	-			-			-
23	9/23/94		1	B	1.32	66	-			-			-
23	9/30/94		1	B	1.22	61	-			-			-
23	10/7/94		1	B	1.06	53.3	-			-			-
23	10/14/94		1	B	1.52	75.9	-			-			-
23	10/20/94		1	B	1.43	71.8	-			-			-
23	10/29/94		1	B	1.44	72	-			-			-
23	11/15/94		1	++	4.81	334	-			-			-
23	11/29/94		0	0			0			0			0
23	12/11/94	Glenclyff Methodist Church Sp West	1	++	5.91	410	-			-			-
23	12/22/94		1	B	0.50	35	-			-			-
25	9/17/94		1	B	0.26	13	-			-			-
25	9/24/94		1	B	0.44	22	-			-			-
25	10/1/94		1	B	0.50	25	-			-			-
25	10/7/94		1	B	0.38	19	-			-			-
25	10/15/94		0	0			0			0			-
25	10/22/94		1	-			-			-			-
25	10/29/94		1	B	0.40	20	-			-			-
25	11/12/94		1	B	0.69	48	-			-			-
25	11/27/94		1	B	1.73	120	-			-			-
25	12/10/94		1	B	0.39	27	-			-			-
25	12/28/94	Glenclyff Methodist Church Sp East	1	-			-			-			-
26	9/17/94		1	B	0.12	6	-			-			-
26	9/24/94		1	B	0.34	17	-			-			-
26	10/1/94		1	B	0.18	9	-			-			-
26	10/7/94		0	0			0			0			0
26	10/15/94		1	B	0.60	30.2	-			-			-
26	10/22/94		1	-			-			-			-
26	10/29/94		1	B	0.40	20	-			-			-
26	11/12/94		1	B	0.55	38.4	-			-			-
26	11/27/94		1	-	0.35	24	-			-			-
26	12/10/94		1	-			-			-			-
26	12/28/94		1	-			-			-			-
27	9/17/94	Veritas St Sp on Nolensville Rd Cr	1	B	2.82	141	-			-			-
27	9/23/94		1	B	1.16	58	-			-			-

Receptor Number	Date Recovered	Receptor Location	Eluant Prep	FLUORESCCEIN Results	Conc. in ppb	Intensity	RHODAMINE WT Results	Conc. in ppb	Intensity	EOSINE Results	Conc. in ppb	Intensity	Optical Brightener
27	9/30/94		1	B	1.22	61	-			-			-
27	10/7/94		1	B	2.04	102.1	-			-			-
27	10/14/94		1	B	4.83	242	-			-			-
27	10/20/94		1	B	3.00	150	-			-			-
27	10/29/94		1	B	0.80	40	-			-			-
27	11/15/94		1	B	3.60	250	-			-			-
27	11/29/94		1	B	8.49	589	-			-			-
27	12/11/94		1	B	5.41	375	-			-			-
27	12/22/94		1	B	4.94	343	-			-			-
28	9/23/94	Elysian Fields Sp on Nolensville Rd Cr	1	B	0.60	30	-			-			-
28	9/30/94		1	B	0.40	20	-			-			-
28	10/7/94		0	0			0			0			0
28	10/14/94		1	-			-			-			-
28	10/20/94		1	-			-			-			-
28	10/29/94		1	-			-			-			-
28	11/15/94		1	B	0.30	21	-			-			-
28	11/29/94		1	B	0.43	30	-			-			-
28	12/11/94		1	-			-			-			-
28	12/22/94		1	-			-			-			-
30	9/17/94	100 Oaks Culvert-North on E Fork Cr	1	B	20.43	1023	-			-			-
30	10/1/94		1	B	13.82	692	-			-			-
30	10/7/94		0	0			0			0			0
30	10/15/94		1	B	42.73	2140	-			-			-
30	10/22/94		1	B	40.34	2020	-			-			-
30	10/29/94		1	B	10.32	517	-			-			-
30	11/12/94		1	B	10.62	736.4	-			-			-
30	11/27/94		1	B	1.56	108	-			-			-
30	12/10/94		1	B	11.36	788	-			-			-
30	12/28/94		1	B	13.23	918	B	1.27	17	-			-
31	9/17/94	100 Oaks Bubbling Sp in E Fork Cr	1	B	0.08	4	-			-			-
31	9/24/94		1	B	0.24	12	-			-			-
31	10/1/94		1	B	0.10	5	-			-			-
31	10/7/94		1	B	2.82	141	-			-			-
31	10/15/94		1	B	0.20	10	-			-			-
31	10/22/94		1	-			-			-			-
31	10/29/94		1	B	0.14	7	-			-			-
31	11/12/94		0	0			0			0			0
31	11/27/94		1	B	12.33	855	-			-			-

Receptor Number	Date Recovered	Receptor Location	Eluant		FLUORESCCEIN			RHODAMINE WT			EOSINE		Optical Brightener
			Prep	Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	
31	12/10/94		0	0			0			0			0
31	12/28/94		1	B	11.09	769	+	2.62	35	-			-
32	9/17/94	100 Oaks Culvert at E Fork Cr by tanks	1	B	0.04	2	-			-			-
32	9/24/94		1	B	2.66	133	-			-			-
32	10/1/94		1	B	0.24	12	-			-			-
32	10/7/94		0	0			0			0			0
32	10/15/94		1	B	6.19	310	-			-			-
32	10/22/94		1	B	3.02	151.1	-			-			-
32	10/29/94		1	B	20.55	1029	-			-			-
32	11/12/94		1	B	10.41	722.4	-			-			-
32	11/27/94		1	B	3.32	230	-			-			-
32	12/10/94		1	B	7.53	522	-			-			-
32	12/28/94		0	0			0			0			0
33	9/17/94	Mimosa Culvert on E Fork Cr	1	B	0.22	11	-			-			-
33	9/24/94		1	B	20.43	1023	-			-			-
33	10/1/94		1	B	0.66	33	-			-			-
33	10/7/94		1	B	1.54	77	-			-			-
33	10/15/94		1	B	1.54	77	-			-			-
33	10/22/94		1	B	0.59	29.3	-			-			-
33	10/29/94		1	B	1.68	84	-			-			-
33	11/12/94		1	B	1.59	110.5	-			-			-
33	11/27/94		1	B	1.17	81	-			-			-
33	12/10/94		1	B	2.25	156	-			-			-
33	12/28/94		1	B	2.06	143	-			-			-
34	9/17/94	Fairgrounds Ditch Sp on Browns Cr	1	B	0.26	13	-			-			-
34	10/7/94		1	B	1.22	61	-			-			-
34	11/12/94		1	B	1.43	99.2	-			-			-
34	11/27/94		1	B	2.34	162	-			-			-
34.1	9/24/94	Fairgrounds Ditch Sp on Browns Cr	1	B	0.52	26	-			-			-
34.1	10/1/94		1	B	0.50	25	-			-			-
34.1	10/15/94		1	B	0.97	48.7	-			-			-
34.1	10/22/94		1	B	0.42	21	-			-			-
34.1	10/29/94		1	B	0.24	12	-			-			-
34.1	12/10/94		1	B	0.74	51	-			-			-
34.1	12/28/94		1	B	2.85	198	-			-			-
34.2	9/24/94	Fairgrounds Ditch Sp on Browns Cr	1	B	0.50	25	-			-			-
34.2	10/1/94		1	B	0.80	40	-			-			-
34.2	10/15/94		1	B	2.20	110	-			-			-

Receptor Number	Date Recovered	Receptor Location	Eluant Prep	FLUORESCCEIN			RHODAMINE WT			EOSINE			Optical Brightener
				Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	
34.2	10/29/94		1	B	0.42	21	-			-			-
34.2	12/10/94		0	0			0			0			0
34.2	12/28/94		0	0			0			0			0
35	9/17/94	Woodlawn Culvert into Browns Cr	1	B	0.30	15	-			-			-
35	9/24/94		1	B	0.40	20	-			-			-
35	10/1/94		1	B	0.30	15	-			-			-
35	10/7/94		1	B	0.54	27	-			-			-
35	10/15/94		1	B	0.59	29.3	-			-			-
35	10/22/94		1	B	0.28	14	-			-			-
35	10/29/94		0	0			0			0			0
35	11/12/94		1	B	0.76	53	-			-			-
35	11/27/94		0	0			0			0			0
35	12/10/94		0	0			0			0			0
35	12/28/94		1	B	1.97	137	-			-			-
36	9/17/94	Sycamore Sp near N'vill Speedway	1	B	0.54	27	-			-			-
36	9/24/94		1	B	1.08	54	-			-			-
36	10/1/94		1	B	1.40	70	-			-			-
36	10/7/94		1	B	1.62	81	-			-			-
36	10/15/94		1	B	1.99	99.5	-			-			B
36	10/22/94		1	B	1.51	75.8	-			-			-
36	10/29/94		1	B	1.30	65	-			-			-
36	11/12/94		1	B	2.01	139.1	-			-			-
36	11/27/94		1	B	6.11	424	-			-			-
36	12/10/94		0	0			0			0			0
36	12/28/94		1	B	2.22	154	B	1.20	16	-			-
37	9/17/94	Prostitute Sp on Browns Cr	1	B	0.14	7	-			-			-
37	9/24/94		1	B	0.64	32	-			-			-
37	10/1/94		1	B	0.20	10	-			-			-
37	10/7/94		0	0			0			0			0
37	10/15/94		1	B	0.55	27.3	-			-			-
37	10/22/94		1	B	0.32	15.9	-			-			-
37	10/29/94		1	B	0.76	38	-			-			-
37	11/12/94		1	B	4.78	331.9	-			-			-
37	11/27/94		1	B	4.70	326	-			-			-
37	12/10/94		1	B	6.76	469	-			-			-
37	12/28/94		1	-			-			-			-
38	9/17/94	Trevecca College Sp on Browns Cr	1	B	0.60	30	-			-			-
38	9/24/94		1	B	0.72	36	-			-			-



Receptor Number	Date Recovered	Receptor Location	Eluant Prep	FLUORESCCEIN			RHODAMINE WT			EOSINE			Optical Brightener
				Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	
38	10/1/94		1	B	0.40	20	-			-			-
38	10/7/94		0	0			0			0			0
38	10/15/94		1	B	0.82	41.3	-			-			B
38	10/22/94		1	B	0.95	47.4	-			-			-
38	10/29/94		1	B	0.80	40	-			-			-
38	11/12/94		1	B	0.69	48	-			-			-
38	11/27/94		0	0			0			0			0
38	12/10/94		1	B	0.91	63	-			-			-
38	12/28/94		1	-			-			-			-
40	9/17/94	Boys Club Sp on Thompson Ln Cr	1	B	0.22	11	-			-			-
40	9/24/94		1	B	0.14	7	-			-			-
40	10/1/94		1	B	0.24	12	-			-			-
40	10/7/94		0	0			0			0			0
40	10/15/94		1	-			-			-			-
40	10/22/94		1	-			-			-			-
40	10/29/94		1	-			-			-			-
40	11/12/94		1	-			-			-			-
40	11/27/94		1	-			-			-			-
40	12/10/94		1	-			-			-			-
40	12/28/94		1	-			-			-			-
41	9/17/94	Selena Rd Sp on Thompson Ln Cr	1	B	0.34	17	-			-			-
41	9/24/94		1	B	0.36	18	-			-			-
41	10/1/94		1	B	0.34	17	-			-			-
41	10/7/94		1	-			-			-			-
41	10/15/94		1	-			-			-			-
41	10/22/94		1	-			-			-			-
41	10/29/94		1	-			-			-			-
41	11/12/94		1	-			-			-			-
41	11/27/94		0	0			0			0			0
41	12/10/94		1	-			-			-			-
41	12/28/94		1	-			-			-			-
42	9/17/94	Nolensville Rd Cr at McNally Dr	1	B	0.46	23	-			-			-
42	9/23/94		1	B	0.06	3	-			-			-
42	9/30/94		1	B	0.84	42	-			-			-
42	10/7/94		1	B	0.49	24.5	-			-			-
42	10/14/94		0	0			0			-			0
42	10/20/94		1	-			-			-			-
42	10/29/94		1	B	0.44	22	-			-			-

Receptor Number	Date Recovered	Receptor Location	Eluant Prep	FLUORESCCEIN			RHODAMINE WT			EOSINE			Optical Brightener
				Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	
42	11/15/94	McNally Dr Sp on Nolensville Rd Cr	1	++	12.15	843	-			-			-
42	11/29/94		1	+++	52.26	3625	-			-			-
42	12/11/94		1	+	3.95	274	-			-			-
42	12/22/94		1	B	1.82	126	-			-			-
43	9/17/94		1	B	0.10	5	-			-			-
43	9/23/94		1	B	0.22	11	-			-			-
43	9/30/94		1	B	0.28	14	-			-			-
43	10/7/94		1	-			-			-			-
43	10/14/94		1	B	0.62	31.2	-			-			-
43	10/20/94		1	-			-			-			-
43	10/29/94	Croft Sp (downstream) at Grassmere	1	B	0.34	17	-			-			-
43	11/15/94		1	++	7.01	486	-			-			-
43	11/29/94		1	+++	25.52	1770	-			-			-
43	12/11/94		1	+	4.17	289	-			-			-
43	12/22/94		1	B	1.12	78	-			-			-
44	9/17/94		1	B	11.60	581	-			-			-
44	9/23/94		1	B	19.71	987	-			-			-
44	9/30/94		1	B	11.72	587	-			-			-
44	10/7/94		1	B	30.15	1510	-			-			-
44	10/14/94		1	B	20.05	1004	-			-			-
44	10/20/94	Croft Sp at Grassmere	1	B	11.31	566.3	-			-			-
44	10/29/94		1	B	28.32	1418	-			-			-
44	11/15/94		1	B**	43.25	3000	-			-			-
44	11/29/94		1	B	47.00	3260	-			-			-
44	12/11/94		1	B	26.57	1843	-			-			-
44	12/22/94		1	B	28.14	1952	-			-			-
45.1	9/17/94		1	B	11.98	600	-			-			-
45.1	9/23/94		1	B	15.32	767	-			-			-
45.1	9/30/94		1	B	20.53	1028	-			-			-
45.1	10/7/94		1	B	20.51	1027	-			-			-
45.1	10/14/94	Croft Sp at Grassmere	1	B	12.00	600.7	-			-			-
45.1	10/20/94		1	B	9.42	471.7	-			-			-
45.1	10/29/94		1	B	35.05	1755	-			-			-
45.1	11/15/94		1	B**	43.39	3010	-			-			-
45.1	11/29/94		1	B	46.56	3230	-			-			-
45.1	12/11/94		1	B	18.87	1309	-			-			-
45.1	12/22/94		1	B	14.63	1015	-			-			-
45.2	9/17/94		1	B	18.59	931	-			-			-

Receptor Number	Date Recovered	Receptor Location	Eluant Prep	FLUORESCCEIN Results	Conc. in ppb	Intensity	RHODAMINE WT Results	Conc. in ppb	Intensity	EOSINE Results	Conc. in ppb	Intensity	Optical Brightener
45.2	9/23/94		1	B	24.40	1222	-			-			-
45.2	9/30/94		1	B	13.60	681	-			-			-
45.2	10/7/94		1	B	16.45	823.7	-			-			-
45.2	10/14/94		1	B	8.15	407.9	-			-			-
45.2	10/20/94		1	B	7.43	372.3	-			-			-
45.2	10/29/94		1	B	17.79	891	-			-			-
45.2	11/15/94		1	B**	40.80	2830	-			-			-
45.2	11/29/94		1	B	68.04	4720	-			-			-
45.2	12/11/94		1	B	19.71	1367	-			-			-
45.2	12/22/94		1	B	15.86	1100	-			-			-
46	9/30/94	North Tributary Sp at Grassmere	1	B	0.12	6	-			-			-
46	10/7/94		1	-			-			-			-
46	10/14/94		1	B	0.24	11.9	-			-			-
46	10/20/94		1	-			-			-			-
46	10/29/94		1	-			-			-			-
46	11/15/94		1	B	0.17	12	-			-			-
46	11/29/94		1	B	0.27	19	-			-			-
46	12/11/94		1	-			-			-			-
46	12/22/94		1	-			-			-			-
47	9/17/94	Otter Sp at Grassmere	1	B	0.24	12	-			-			-
47	9/23/94		1	B	0.18	9	-			-			-
47	9/30/94		1	B	0.10	5	-			-			-
47	10/7/94		1	-			-			-			-
47	10/14/94		1	B	0.13	6.7	-			-			-
47	10/20/94		1	-			-			-			-
47	10/29/94		1	-			-			-			-
47	11/13/94		1	-			-			-			-
47	11/29/94		0	0			0			0			0
47	12/11/94		1	-			-			-			-
47	12/22/94		1	-			-			-			-
48	9/17/94	Cougar Sp at Grassmere	1	B	0.08	4	-			-			-
48	9/23/94		1	B	0.04	2	-			-			-
48	9/30/94		1	B	0.14	7	-			-			-
48	10/7/94		1	-			-			-			-
48	10/14/94		1	-			-			-			-
48	10/20/94		1	-			-			-			-
48	10/29/94		1	-			-			-			-
48	11/15/94		1	-			-			-			-

Receptor Number	Date Recovered	Receptor Location	Eluant Prep	FLUORESCCEIN			RHODAMINE WT			EOSINE			Optical Brightener
				Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	
48	11/29/94		1	-			-			-			-
48	12/11/94		1	-			-			-			-
48	12/22/94		1	-			-			-			-
49	9/17/94	Southeast Tributary Sp at Grassmere	1	B	0.06	3	-			-			-
49	9/23/94		1	B	0.06	3	-			-			-
49	9/30/94		1	B	0.14	7	-			-			-
49	10/7/94		1	-			-			-			-
49	10/14/94		1	B	0.12	5.9	-			-			-
49	10/20/94		1	-			-			-			-
49	10/29/94		1	-			-			-			-
49	11/15/94		1	-			-			-			-
49	11/29/94		1	-			-			-			-
49	12/11/94		1	-			-			-			-
49	12/22/94		1	-			-			-			-
50	9/18/94	Woodlawn Mausoleum Sp	1	B	0.16	8	-			-			-
50	9/24/94		1	B	0.12	6	-			-			-
50	10/1/94		1	B	0.08	4	-			-			-
50	10/7/94		1	B	0.12	6	-			-			-
50	10/15/94		1	-			-			-			-
50	10/22/94		1	-			-			-			-
50	10/29/94		0	0			0			0			0
50	11/12/94		1	-			-			-			-
50	11/27/94		0	0			0			0			0
50	12/10/94		1	-			-			-			-
50	12/28/94		1	-			-			-			-
51	9/18/94		1	B	0.08	4	-			-			-
51	9/24/94	Woodlawn Cemetery Sp	1	B	0.06	3	-			-			-
51	10/1/94		1	-			-			-			-
51	10/7/94		1	-			-			-			-
51	10/15/94		1	-			-			-			-
51	10/22/94		1	-			-			-			-
51	10/29/94		1	-			-			-			-
51	11/12/94		1	B	0.21	14.4	-			-			-
51	11/27/94		1	B	0.10	7	-			-			-
51	12/10/94		1	-			-			-			-
51	12/28/94		1	B	0.26	18	-			-			-
52	9/17/94	Weedy Sp at Radnor Yards	1	B	0.58	29	-			-			-
52	9/24/94		1	B	1.02	51	-			-			-

Receptor Number	Date Recovered	Receptor Location	Eluant	FLUORESCCEIN			RHODAMINE WT			EOSINE			Optical
			Prep	Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	Brightener
52	9/30/94	Orange Sp at Radnor Yards	1	B/?	77.88	3900	-			-			-
52	10/6/94		1	B	0.62	31	-			-			-
52	10/14/94		1	B	1.44	72	-			-			-
52	10/22/94		1	-			-			-			-
52	10/28/94		1	-			-			-			-
52	11/13/94		1	-			-			-			-
52	11/23/94		1	-			-			-			-
52	12/11/94		1	-			-			-			-
52	12/22/94		1	-			-			-			-
53	9/17/94		Orange Sp at Radnor Yards	1	B	2.16	108	-			-		
53	9/24/94	1		B	1.80	90	-			-			-
53	9/30/94	1		B	1.90	95	-			-			-
53	10/6/94	1		B	1.48	74	-			-			-
53	10/14/94	1		B	3.37	169	-			-			-
53	10/22/94	1		B	3.02	151	-			-			-
53	10/28/94	1		B	2.14	107	-			-			-
53	11/13/94	1		B	2.29	159	-			-			-
53	11/23/94	1		B	3.43	238	-			-			-
53	12/11/94	1		B	2.29	159	-			-			-
53	12/22/94	West Culvert Cr at Radnor Yards	1	B	2.81	195	-			-			-
54	9/17/94		1	B	0.30	15	-			-			-
54	9/24/94		1	B	0.26	13	-			-			-
54	9/30/94		1	B	0.82	41	-			-			-
54	10/6/94		1	B	0.50	25	-			-			-
54	10/14/94		1	B	1.36	68.2	-			-			-
54	10/22/94		1	B	0.82	40.9	-			-			-
54	10/28/94		1	-			-			-			-
54	11/13/94		1	B	0.97	67	-			-			-
54	11/23/94		1	-			-			-			-
54	12/11/94	East Culvert Cr at Radnor Yards	1	B	1.92	133	-			-			-
54	12/22/94		1	-			-			-			-
55	9/17/94		1	B	0.34	17	-			-			-
55	9/24/94		1	B	0.34	17	-			-			-
55	9/30/94		1	B	0.34	17	-			-			-
55	10/6/94		1	B	0.24	12	0			0			0
55	10/14/94		1	B	0.99	49.5	-			-			-
55	10/22/94		1	B	0.48	23.8	-			-			-
55	10/28/94		1	-			-			-			-

Receptor Number	Date Recovered	Receptor Location	Eluent Prep	FLUORESCCEIN			RHODAMINE WT			EOSINE			Optical Brightener
				Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	
55	11/13/94		1	B	0.66	46	-			-			-
55	11/23/94		1	B	0.62	43	-			-			-
55	12/11/94		1	B/?	25.40	1762	-			-			-
55	12/22/94		1	B	2.77	192	-			-			-
56	9/17/94	Warehouse Sp on E Fork Cr	1	B	0.16	8	-			-			-
56	9/24/94		1	B	0.16	8	-			-			-
56	10/1/94		1	B	0.32	16	-			-			-
56	10/15/94		1	-			-			-			-
56	10/22/94		1	-			-			-			-
56	10/29/94		1	-			-			-			-
56	11/12/94		1	-			-			-			-
56	11/27/94		1	-			-			-			-
56	12/10/94		1	-			-			-			-
56	12/28/94		1	-			-			-			-
56	10/07/94		0	0			0			0			0
57	9/17/94	CSX Outfall-Head of E Fork Cr	1	B	11.34	568	-			-			-
57	9/24/94		1	B	14.58	730	-			-			-
57	10/1/94		1	B	20.51	1027	-			-			-
57	10/7/94		1	B	38.34	1920	-			-			-
57	10/15/94		1	B	57.37	2873	-			-			-
57	10/22/94		1	B	13.78	690.3	-			-			-
57	10/29/94		1	B	42.01	2104	-			-			-
57	11/12/94		1	B**	65.49	4543	-			-			-
57	11/27/94		1	B	61.27	4250	+	3.52	47	-			-
57	12/10/94		1	B	14.81	1027	+	3.74	50	-			-
57	12/28/94		1	B	58.15	4034	++	10.11	135	-			-
58	9/17/94	Dumas Dr Sp on Tributary of Sevenmile Cr	1	B	0.02	1	-			-			-
58	9/24/94		1	B	0.16	8	-			-			-
58	10/1/94		1	B	0.10	5	-			-			-
58	10/7/94		0	0			0			0			0
58	10/15/94		1	B	0.32	16	-			-			-
58	10/22/94		1	-			-			-			-
58	10/29/94		1	-			-			-			-
58	11/12/94		1	B	0.39	27	-			-			-
58	11/27/94		1	B	0.27	19	-			-			-
58	12/10/94		1	-			-			-			-
58	12/28/94		1	B	0.29	20	-			-			-
59	10/1/94	Glenclyff High School Sp	1	B	0.64	32	-			-			-

Receptor Number	Date Recovered	Receptor Location	Eluant Prep	FLUORESCCEIN			RHODAMINE WT			EOSINE			Optical Brightener
				Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	
59	10/7/94		1	B	0.52	26	-			-			-
59	10/15/94		1	B	0.44	22	-			-			-
59	10/22/94		1	B	0.43	21.6	-			-			-
59	10/29/94		1	-			-			-			-
59	11/12/94		1	B	0.82	57	-			-			-
59	11/27/94		1	B	1.96	136	-			-			-
59	12/10/94		1	-			-			-			-
59	12/28/94		1	B	0.37	26	-			-			-
60	9/17/94	Whitsett School Sp	1	B	0.44	22	-			-			-
60	9/24/94		1	B	0.46	23	-			-			-
60	10/1/94		1	B	0.32	16	-			-			-
60	10/7/94		0	0			0			0			0
60	10/15/94		1	-			-			-			-
60	10/22/94		1	-			-			-			-
60	10/29/94		1	-			-			-			-
60	11/12/94		1	-			-			-			-
60	11/27/94		1	-			-			-			-
60	12/10/94		0	0			0			0			0
60	12/28/94		1	-			-			-			-
61	9/17/94	Whitsett Street Sp	1	B	0.62	31	-			-			-
61	9/24/94		1	B	0.94	47	-			-			-
61	10/1/94		1	B	1.02	51	-			-			-
61	10/7/94		1	B	0.90	45	-			-			-
61	10/15/94		1	B	1.18	59	-			-			-
61.1	10/22/94	Whitsett Street Sp	1	B	0.52	26.1	-			-			-
61.1	10/29/94		1	B	0.36	18	-			-			-
61.1	11/12/94		1	B	1.16	80.5	-			-			-
61.1	12/10/94		1	B	2.85	198	-			-			-
61.1	12/28/94		1	B	2.06	143	-			-			-
61.2	10/22/94	Whitsett Street Sp	1	B	1.67	83.6	-			-			-
61.2	10/29/94		1	B	1.86	93	-			-			-
61.2	11/12/94		1	B	1.95	135	-			-			-
61.2	11/27/94		1	B	4.09	284	-			-			-
61.2	11/27/94		0	0			0			0			0
61.2	12/10/94		0	0			0			0			0
61.2	12/28/94		0	0			0			0			0
63	9/17/94	Mill Cr Bend Sp	1	B	0.12	6	-			-			-
63	9/24/94		1	B	0.32	16	-			-			-

Receptor Number	Date Recovered	Receptor Location	Eluant Prep	FLUORESCCEIN			RHODAMINE WT			EOSINE			Optical Brightener
				Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	
63	10/1/94		1	B	0.38	19	-			-			-
63	10/15/94		1	B	0.62	31	-			-			-
63	10/29/94		1	-			-			-			-
63	11/12/94		1	B	0.60	41.3	-			-			-
63	11/27/94		1	-			-			-			-
63	12/10/94		0	0			0			0			0
63	12/28/94		1	B	1.23	85	-			-			-
63	10/7/95		1	B	0.10	5	-			-			-
66	9/17/94	Natl Guard Armory Sp on E Fork Cr	1	B	0.78	39	-			-			-
66	9/24/94		1	B	0.32	16	-			-			-
66	10/1/94		1	B	1.38	69	-			-			-
66	10/7/94		1	B	0.68	34	-			-			-
66	10/15/94		1	B	0.80	40	-			-			-
66	10/22/94		1	B	0.83	41.4	-			-			-
66	10/29/94		1	-			-			-			-
66	11/12/94		1	B	1.24	86	-			-			-
66	11/27/94		0	0			0			0			0
66	12/10/94		1	B	1.33	92	-			-			-
66	12/28/94		1	-			-			-			-
67	9/17/94	Natl Guard Armory Culvert-E Fork Cr	1	B	0.16	8	-			-			-
67	9/24/94		1	B	0.28	14	-			-			-
67	10/1/94		1	B	0.86	43	-			-			-
67	10/7/94		1	B	0.78	39	-			-			-
67	10/15/94		1	B	0.74	37	-			-			-
67	10/22/94		1	-			-			-			-
67	10/29/94		0	0			0			0			0
67	11/12/94		1	B	0.59	41	-			-			-
67	11/27/94		0	0			0			0			0
67	12/10/94		0	0			0			0			0
67	12/28/94		1	B	1.05	73	-			-			-
68	9/17/94	W Branch of E Fork of Browns Cr	1	B	0.72	36	-			-			-
68	9/24/94		1	B	0.44	22	-			-			-
68	10/1/94		1	B	0.48	24	-			-			-
68	10/7/94		1	B	0.44	22	-			-			-
68	10/15/94		1	-			-			-			-
68	10/22/94		1	-			-			-			-
68	10/29/94		1	-			-			-			-
68	11/12/94		0	0			0			0			0



Receptor Number	Date Recovered	Receptor Location	Eluant Prep	FLUORESCCEIN			RHODAMINE WT			EOSINE			Optical Brightener
				Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	
68	11/27/94		1	B	1.69	117	-			-			-
68	12/10/94		1	-			-			-			-
68	12/28/94		1	-			-			-			-
69	9/17/94	CSX-1 Rhod Inj Well at Radnor Yards	1	-			-			-			-
69	9/24/94		1	-			++	71.28	673	-			-
69	9/30/94		1	B	0.04	2	-			-			-
69	10/6/94		0	0			0			0			0
69	10/14/94		1	-			+++	9638.54	91000	-			-
69	10/22/94		0	0			0			0			0
69	10/28/94		0	0			0			0			0
69	11/13/94		0	0			0			0			0
69	12/11/94		1	?	971.23	67372	+++	17664	235864	-			-
69	12/22/94		1	?	1484.85	103000	+++	4591.96	61316	-			-
70	9/17/94	P1 on Radnor Yards	1	B	0.16	8	-			-			-
70	9/24/94		1	B	0.08	4	-			-			-
70	9/30/94		1	B	0.10	5	-			-			-
70	10/14/94		1	-			-			-			-
70	10/22/94		1	-			-			-			-
70	10/28/94		1	-			-			-			-
70	11/13/94		1	-			B	0.50	6.7	-			-
70	11/23/94		0	0			0			0			0
70	12/10/94		0	0			0			0			0
70	12/28/94		0	0			0			0			0
70	10/06/94	P2 on Radnor Yards	1	-			-			-			-
71	9/17/94		1	B	0.02	1	-			-			-
71	9/24/94		1	B	0.04	2	-			-			-
71	9/30/94		1	B	0.02	1	-			-			-
71	10/6/94		1	-			-			-			-
71	10/14/94		1	-			-			-			-
71	10/22/94		0	0			0			0			0
71	10/28/94		1	-			-			-			-
71	11/13/94		1	B	0.12	8	B	0.19	2.5	-			-
71	11/23/94		1	B	0.06	3.9	B	0.22	3.0	-			-
71	12/11/94	EPA-1 Well at Radnor Yards	1	B	0.63	44	-			-			-
71	12/22/94		1	-			-			-			-
72	9/17/94		1	B	3.49	175	-			-			-
72	9/24/94		1	B	5.71	286	-			-			-
72	9/30/94		1	B	10.52	527	-			-			-

Receptor Number	Date Recovered	Receptor Location	Eluant Prep	FLUORESCCEIN			RHODAMINE WT			EOSINE			Optical Brightener
				Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	
72	10/6/94		1	B	1.16	58	-			-			-
72	10/14/94		1	B	11.14	557.9	-			-			-
72	10/22/94		1	B	9.54	477.7	-			-			-
72	10/28/94		1	B	10.16	508.6	-			-			-
72	11/13/94		1	B	3.03	210	-			-			-
72	11/23/94		1	B	12.61	875	-			-			-
72	12/11/94		1	?	67.41	4676	-			-			-
72	12/22/94		1	B	14.82	1028	-			-			-
73	9/17/94	Upstream storm sewer at Radnor Yard	1	B	16.37	820	-			-			-
73	9/24/94		1	B	0.34	17	-			-			-
73	9/30/94		1	B	0.04	2	-			-			-
73	10/6/94		1	B	0.04	2	-			-			-
73	10/14/94		1	B	11.68	585.1	-			-			-
73	10/22/94		1	B	123.41	6180	-			-			-
73	10/28/94		1	B	0.81	40.4	-			-			-
73	11/13/94		1	B	3.37	234	-			-			-
73	11/23/94		1	B	2.58	179	-			-			-
73	12/11/94		0	0			0			0			0
73	12/22/94		1	B/?	193.94	13453	++	34.52	461	-			-
74	9/17/94	Treatment Plant at Radnor Yards	1	B	41.93	2100	-			-			-
74	9/24/94		1	B	87.86	4400	-			-			-
74	9/30/94		1	B	111.83	5600	-			-			-
74	10/6/94		1	B	109.63	5490	-			-			-
74	10/14/94		1	B	15.23	762.6	-			-			-
74	10/22/94		0	0			0			0			0
74	10/28/94		1	B	157.76	7900	-			-			-
74	11/13/94		1	B	327.24	22700	-			-			-
74	11/23/94		1	B	148.20	10280	++	10.78	144	-			-
74	12/11/94		1	B	109.01	7562	++	10.41	139	-			-
74	12/22/94		1	B	313.42	21741	++	31.60	422	-			-
75	9/17/94	P3 at Radnor Yards	1	B	0.04	2	-			-			-
75	9/24/94		1	B	0.04	2	-			-			-
75	9/30/94		1	-			-			-			-
75	10/6/94		1	-			-			-			-
75	10/14/94		1	-			-			-			-
75	10/22/94		1	-			-			-			-
75	10/28/94		1	-			-			-			-
75	11/13/94		1	B	0.05	3.6	B	0.20	2.7	-			-

Receptor Number	Date Recovered	Receptor Location	Eluant Prep	FLUORESCCEIN			RHODAMINE WT			EOSINE			Optical Brightener
				Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	
75	11/23/94		1	B	0.06	4.0	B	0.28	3.8	-			-
75	12/11/94		1	-			-			-			-
75	12/22/94		1	-			-			-			-
76	9/17/94	P4 at Radnor Yards	1	B	0.02	1	-			-			-
76	9/24/94		1	B	0.02	1	-			-			-
76	9/30/94		1	B	0.02	1	-			-			-
76	10/6/94		1	-			-			-			-
76	10/14/94		1	-			-			-			-
76	10/22/94		1	-			-			-			-
76	10/28/94		1	-			-			-			-
76	11/13/94		1	B	0.02	1.7	-			-			-
76	11/23/94		1	-			-			-			-
76	12/11/94		1	-			B	0.82	11	-			-
76	12/22/94		1	-			-			-			-
77	9/17/94	P5 at Radnor Yards	1	B	0.04	2	-			-			-
77	9/24/94		1	B	0.04	2	-			-			-
77	9/30/94		1	-			-			-			-
77	10/6/94		1	-			-			-			-
77	10/14/94		1	-			-			-			-
77	10/22/94		1	-			-			-			-
77	10/28/94		1	-			-			-			-
77	11/13/94		1	-			-			-			-
77	11/23/94		1	-			-			-			-
77	12/11/94		1	-			-			-			-
77	12/22/94		1	-			-			-			-
78	9/17/94	P6 at Radnor Yards	1	B	0.04	2	-			-			-
78	9/24/94		1	B	0.04	2	-			-			-
78	9/30/94		1	B	0.02	1	-			-			-
78	10/6/94		1	-			-			-			-
78	10/14/94		1	-			-			-			-
78	10/22/94		1	-			-			-			-
78	10/28/94		1	-			-			-			-
78	11/13/94		1	-			-			-			-
78	11/23/94		1	-			-			-			-
78	12/11/94		1	-			-			-			-
78	12/22/94		1	-			-			-			-
79	9/17/94	Storm sewer near P5 at Radnor Yards	1	B	16.57	830	-			-			-
79	9/24/94		1	B	0.82	41	-			-			-

Receptor Number	Date Recovered	Receptor Location	Eluant Prep	FLUORESCCEIN			RHODAMINE WT			EOSINE			Optical Brightener
				Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	
79	9/30/94		1	-			-			-			-
79	10/6/94		1	B	87.46	4380	-			-			-
79	10/14/94		1	B	11.18	560	-			-			-
79	10/22/94		1	B	26.56	1330	-			-			-
79	10/28/94		1	B	128.80	6450	-			-			-
79	11/13/94		1	B	28.26	1960	-			-			-
79	11/23/94		1	B	360.40	25000	++	13.63	182	-			-
79	12/11/94		0	0			0			0			0
79	12/22/94		1	B	102.61	7118	++	10.33	138	-			-
80	9/17/94	AST-6 at Radnor Yards	1	B	0.04	2	-			-			-
80	10/14/94		1	B	7.54	377.4	-			-			-
80	10/22/94		1	B	7.73	387.3	-			-			-
80	10/28/94		1	B	2.04	102.4	-			-			-
80	11/13/94		0	0			0			0			0
80	11/27/94		0	0			0			0			0
80	12/11/94		0	0			0			0			0
80	12/22/94		0	0			0			0			0
81	9/18/94	Saad Well BH-18 E of Trousdale Dr	1	B	0.28	14	-			-			-
81	9/24/94		1	B	0.26	13	-			-			-
81	10/1/94		1	B	0.36	18	-			-			-
81	10/7/94		1	B	0.16	8	-			-			-
81	10/15/94		1	B	0.26	13.1	-			-			-
81	10/22/94		1	B	0.22	11.2	-			-			-
81	10/29/94		0	0			0			0			0
81	11/12/94		0	0			0			0			0
81	11/27/94		0	0			0			0			0
81	12/10/94		1	B	1.51	105	-			-			-
81	12/28/94		1	B	0.56	39	-			-			-
82	9/17/94	Ogden Well at Radnor Yards	1	B	3.51	176	-			-			-
82	9/24/94		1	B	2.54	127	-			-			-
82	9/30/94		1	B	4.93	247	-			-			-
82	10/6/94		1	-			-			?	7.81	49	-
82	10/14/94		1	B	5.65	282.9	-			?	33.95	212.9	-
82	10/22/94		1	B	6.17	309	-			?	40.44	253.6	-
82	10/28/94		1	-			-			?	10.84	68	-
82	11/13/94		1	B	2.78	193	-			?	25.81	227	-
82	11/23/94		1	-			-			?	26.27	231	-
82	12/11/94		1	B	5.46	379	-			-			-

Receptor Number	Date Recovered	Receptor Location	Eluant			FLUORESCCEIN			RHODAMINE WT			EOSINE			Optical Brightener
			Prep	Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	Results	Conc. in ppb	
82	12/22/94	Storm Sewer near P3 at Radnor Yards	1	B/?	35.41	2456	-			-			-		++
83	9/17/94		1	B	0.86	43	-			-			-		-
83	9/24/94		1	B	0.52	26	-			-			-		-
83	9/30/94		1	B	0.92	46	-			-			-		-
83	10/6/94		1	B	0.52	26	-			-			-		-
83	10/14/94		0	0			0			0			0		0
83	10/22/94		0	0			0			0			0		0
83	10/28/94		1	B	0.92	46	-			-			-		-
83	11/13/94		1	B	1.34	93	-			-			-		-
83	11/23/94		1	B	1.72	119	-			-			-		-
83	12/11/94		1	-			-			-			-		-
83	12/22/94		0	0			0			0			0		0
84	9/18/94	Saad Site Well SSS-1	1	-			-			?	193.73	1215	-		-
84	9/24/94		1	-			-			?	30.93	194	-		-
84	10/15/94		1	-			-			?	74.83	469.3	++		-
84	10/22/94		1	-			-			?	62.33	390.9	+		-
85	9/18/94	Saad Site Well BH-11	1	-			-			?	13.87	87	-		-
85	10/22/94		1	B	0.53	26.5	-			?	2.97	18.6	+++		-
85	10/29/94		1	-			-			?	5.42	34	-		-
85	11/12/94		0	0			0			0			0		0
85	11/27/94		0	0			0			0			0		0
85	12/10/94	Bent Well	0	0			0			0			0		0
85	12/28/94		0	0			0			0			0		0
86	9/24/94		1	B	0.08	4	-			-			-		-
86	10/1/94		1	B	0.14	7	-			-			-		-
86	10/7/94		1	B	0.06	3	-			-			-		-
86	10/15/94		1	-			-			-			-		-
86	10/29/94		1	-			-			-			-		-
86	11/12/94		1	-			-			-			-		-
86	11/27/94		0	0			0			0			0		0
86	12/10/94		0	0			0			0			0		0
86	12/28/94		0	0			0			0			0		0
101.1	9/17/94	1S at Radnor Yards	1	B	0.04	2	-			-			-		-
101.1	9/24/94		1	B	0.04	2	-			-			-		-
101.1	9/30/94		1	B	0.04	2	-			-			-		-
101.1	10/6/94		1	-			-			-			-		-
101.1	10/14/94		1	-			-			-			-		-
101.1	10/22/94		1	-			-			-			-		-

Receptor Number	Date Recovered	Receptor Location	Eluant Prep	FLUORESCCEIN			RHODAMINE WT			EOSINE			Optical Brightener
				Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	
101.1	10/28/94		1	-			-			-			-
101.1	11/13/94		1	-			-			-			-
101.1	11/23/94		1	B	0.04	2.6	B	0.12	1.6	-			-
101.1	12/11/94		1	-			-			-			-
101.1	12/22/94		1	-			-			-			-
101.2	9/17/94	1D at Radnor Yards	1	B	0.04	2	-			-			-
101.2	9/24/94		1	B	0.06	3	-			-			-
101.2	9/30/94		1	B	0.02	1	-			-			-
101.2	10/6/94		1	-			-			-			-
101.2	10/14/94		1	-			-			-			-
101.2	10/22/94		1	-			-			-			-
101.2	10/28/94		1	-			-			-			-
101.2	11/13/94		1	-			-			-			-
101.2	11/23/94		1	-			-			-			-
101.2	12/11/94		1	-			-			-			-
101.2	12/22/94		1	-			-			-			-
102.1	9/17/94	2S at Radnor Yards	1	B	0.04	2	-			-			-
102.1	9/24/94		1	B	0.02	1	-			-			-
102.1	9/30/94		1	B	0.02	1	-			-			-
102.1	10/6/94		1	-			-			-			-
102.1	10/14/94		1	B	9.75	488.1	-			-			-
102.1	10/22/94		1	B	0.21	10.4	-			-			-
102.1	10/28/94		1	-			-			-			-
102.1	11/13/94		1	B	39.80	2761	-			-			-
102.1	11/23/94		1	-			-			-			-
102.1	12/11/94		1	B	11.46	795	-			-			-
102.1	12/22/94		1	B	0.27	19	-			-			-
102.2	9/17/94	2D at Radnor Yards	1	B	187.71	9400	-			-			-
102.2	9/24/94		1	B	0.64	32	-			-			-
102.2	9/30/94		1	B	57.91	2900	-			-			-
102.2	10/6/94		1	B	20.43	1023	-			-			-
102.2	10/14/94		1	B	8.76	438.8	-			-			-
102.2	10/22/94		1	B	126.60	6340	-			-			-
102.2	10/28/94		1	B	125.01	6260	-			-			-
102.2	11/13/94		1	B	29.84	2070	-			-			-
102.2	11/23/94		1	B/?	387.79	26900	-			-			-
102.2	12/11/94		1	B	51.75	3590	-			-			-
102.2	12/22/94		1	B	0.16	11	-			-			-

Receptor Number	Date Recovered	Receptor Location	Eluant Prep	FLUORESCCEIN			RHODAMINE WT			EOSINE			Optical Brightener
				Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	
103.1	9/17/94	3S at Radnor Yards	1	B	0.02	1	-			-			-
103.1	9/24/94		1	B	0.04	2	-			-			-
103.1	9/30/94		1	B	0.46	23	-			-			-
103.1	10/6/94		1	-			-			-			-
103.1	10/14/94		1	-			-			-			-
103.1	10/22/94		1	-			-			-			-
103.1	10/28/94		1	-			-			-			-
103.1	11/13/94		1	-			-			-			-
103.1	11/23/94		1	-			-			-			-
103.1	12/11/94		1	B	0.78	54	-			-			-
103.1	12/22/94		1	B	1.11	77	-			-			-
103.2	9/17/94	3D at Radnor Yards	1	B	1.16	58	-			-			-
103.2	9/24/94		1	B	1.24	62	-			-			-
103.2	9/30/94		1	B	0.58	29	-			-			-
103.2	10/6/94		1	-			-			-			-
103.2	10/14/94		1	B	0.22	10.8	-			-			-
103.2	10/22/94		1	B	0.44	22.2	-			-			-
103.2	10/28/94		1	-			-			-			-
103.2	11/13/94		1	-			-			-			-
103.2	11/23/94		1	-			-			-			-
103.2	12/11/94		1	B	0.85	59	B	0.82	11	-			-
103.2	12/22/94		1	B	0.10	7	B	0.60	8	-			-
104.1	9/17/94	4S at Radnor Yards	1	B	0.02	1	-			-			-
104.1	9/24/94		1	B	0.04	2	-			-			-
104.1	9/30/94		1	B	0.02	1	-			-			-
104.1	10/6/94		1	-			-			-			-
104.1	10/14/94		1	-			-			-			-
104.1	10/22/94		1	-			-			-			-
104.1	10/28/94		1	-			-			-			-
104.1	11/13/94		1	-			-			-			-
104.1	11/23/94		1	B	0.04	2.6	B	0.10	1.3	-			-
104.1	12/11/94		1	-			-			-			-
104.1	12/22/94		1	-			-			-			-
104.2	9/17/94	4D at Radnor Yards	1	B	0.04	2	-			-			-
104.2	9/24/94		1	B	0.10	5	-			-			-
104.2	9/30/94		1	B	0.02	1	-			-			-
104.2	10/6/94		1	-			-			-			-
104.2	10/14/94		1	-			-			-			-





Receptor Number	Date Recovered	Receptor Location	Eluant Prep	FLUORESCCEIN			RHODAMINE WT			EOSINE			Optical Brightener
				Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	
108.1	9/24/94	8S at Radnor Yards	1	B	0.04	2	-			-			-
108.1	9/30/94		1	-			-			-			-
108.1	10/6/94		1	-			-			-			-
108.1	10/14/94		1	-			-			-			-
108.1	10/22/94		1	-			-			-			-
108.1	10/28/94		1	-			-			-			-
108.1	11/13/94		1	-			-			-			-
108.1	11/23/94		1	-			-			-			-
108.1	12/11/94	9D at Radnor Yards	1	-			B	0.60	8	-			-
108.1	12/22/94		1	-			-			-			-
109.2	9/17/94		1	B	0.04	2	-			-			-
109.2	9/24/94		1	B	0.02	1	-			-			-
109.2	9/30/94		1	B	0.02	1	-			-			-
109.2	10/6/94		1	-			-			-			-
109.2	10/14/94		1	-			-			-			-
109.2	10/22/94		1	-			-			-			-
109.2	10/28/94	10S at Radnor Yards	1	-			-			-			-
109.2	11/13/94		1	-			-			-			-
109.2	11/23/94		1	-			-			-			-
109.2	12/11/94		1	-			-			-			-
109.2	12/22/94		1	-			-			-			-
110.1	9/17/94		1	B	0.04	2	-			-			-
110.1	9/24/94		1	B	0.06	3	-			-			-
110.1	9/30/94		1	B	0.02	1	-			-			-
110.1	10/6/94	11S at Radnor Yards	1	-			-			-			-
110.1	10/14/94		1	-			-			-			-
110.1	10/22/94		1	-			-			-			-
110.1	10/28/94		1	-			-			-			-
110.1	11/13/94		1	-			-			-			-
110.1	11/23/94		1	-			-			-			-
110.1	12/11/94		1	-			-			-			-
110.1	12/22/94		1	-			-			-			-
111.1	9/17/94	11S at Radnor Yards	1	B	0.06	3	-			-			-
111.1	9/24/94		1	B	0.66	33	-			-			-
111.1	9/30/94		1	B	0.04	2	-			-			-
111.1	10/6/94		1	-			-			-			-
111.1	10/14/94		1	-			-			-			-
111.1	10/22/94		1	-			-			-			-

Receptor Number	Date Recovered	Receptor Location	Eluant Prep	FLUORESCCEIN			RHODAMINE WT			EOSINE			Optical Brightener
				Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	Results	Conc. in ppb	Intensity	
111.1	10/28/94		1	-			-			-			-
111.1	11/13/94		1	B	0.13	9	-			-			-
111.1	11/23/94		1	-			-			-			-
111.1	12/11/94		1	-			-			-			-
111.1	12/22/94		1	-			-			-			-
120	11/27/94	End of Elysian Flds Rd Sp	1	B	0.76	53	-			-			-
120	12/10/94		1	-			-			-			-
120	12/28/94		1	B	1.43	99	-			-			-
121	11/12/94	McCall St Sp on Sevenmile Ck	1	B	0.55	38	-			-			-
121	11/27/94		1	B	0.61	42	-			-			-
121	12/10/94		0	0			0			0			0
121	12/28/94		1	-			-			-			-
grab	12/13/94	Excavation on Radnor Yard	0	B	1.33	92	-			-			+
grab	12/19/94		0	B	1.37	95	B/?	0.52	7	-			+
grab	12/22/94		0	B	1.11	77	B/?	0.45	6	-			+
grab	1/16/95		0	B	1.01	70	+	1.20	16	-			+
122	1/16/95	Excavation on Radnor Yard	1	?	24.88	1726	+	2.70	36	-			-
TOTALS			1107	1111			1111			1111			1111

+ Positive

++ Very Positive

+++ Extremely Positive

- Negative

B Background

0 Receptor Not Recovered

Remark \*Positive due to Sp being covered by Browns Creek.

\*\*Increase in background due to change to two-week sampling interval

Crawford and Associates, Inc.  
480 Peachtree Lane  
Bowling Green, Kentucky 42103  
(502) 745-9224

20  
1005

**OVERSIZED**

**DOCUMENT**